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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/914,783	09/05/2001	Peter O' Brien	01P101:RC:SB	4273

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EXAMINER

MIGGINS, MICHAEL C

ART UNIT	PAPER NUMBER
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1772

DATE MAILED: 03/14/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/914,783

Applicant(s)

O' BRIEN, PETER

Examiner

Michael C. Miggins

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 September 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 September 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 1.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

1. Claims 3, 7 and 11 are objected to because of the following informalities: the claims are not in proper Markush format, the claims should read "... selected from the group consisting of ...". Appropriate correction is required.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 5 and 9 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The term "paint grade particle size" in claims 5 and 9 is a relative term which renders the claim indefinite. The term " paint grade particle size " is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and

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the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1, 13-15, 17-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Thedford (U.S. Patent No. 4,123,855) in view of Huang (U.S. Patent No. 6,161,240).

Thedford teaches a fluid filled insole comprising a first layer of fluid-impervious material, a second layer of fluid-impervious material and a sac arranged between the first and second layers via bonding of the first and second layers to form a sac therebetween (column 1, lines 40-50), the sac containing a fluid (column 2, lines 52-68), wherein the fluid can contain deodorants (column 6, lines 1-21), wherein the insole is formed to be generally in the shape of a foot and the sac extending from about the heel region to about the toe or ball region of the foot (column 1, lines 40-50), since the sac formed by said first and second layers extends substantially to the ball region as shown in Figure 9, wherein the first and second layers are flexible and made of an impervious material, wherein the material is polyurethane or another plastic material (since vinyl is another type of plastic material, column 1, lines 40-50, column 2, lines 52-68), wherein the insole has an additional joint extending substantially laterally in the ball region (see Fig. 9 wherein a second joint region is illustrated from the ball to toe region) (applies to instant claims 1, 13-15, 19-21).

Thedford teaches applicant's invention substantially as claimed. However, Thedford fails to teach a heat reflection device for footwear wherein the sac contains a heat reflective material, wherein the sole or inner sole has spaced markings for different shoe sizes so that it can be trimmed according to a marking for a desired size.

Huang teaches a heat reflection device for footwear wherein the sac contains a heat reflective material (column 4, lines 19-31, column 11, lines 3-44, note that Huang teaches that the liquid can be a cooling liquid and a cooling liquid reflects heat), wherein the sole or inner sole has spaced markings for different shoe sizes so that it can be trimmed according to a marking for a desired size (column 13, lines 3-28) (applies to instant claims 1 and 22) for the purpose of providing the property of cooling and for fitting various shoe sizes.

Therefore it would have been obvious to one having ordinary skill in the art at the time applicant's invention was made to have provided a heat reflection device for footwear wherein the sac contains a heat reflective material, wherein the sole or inner sole has spaced markings for different shoe sizes so that it can be trimmed according to a marking for a desired size in the insole of Thedford in order to provide the property of cooling and for fitting various shoe sizes as taught or suggested by Huang.

Claim 1 recites an intended use (i.e. "... in use the device is positioned in relation to the sole of the footwear so the at least some heat conducted or convected through the sole is reflected away from a foot of a wearer of the footwear) and has been given little too no patentable weight since it has been held that a recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations. *Ex parte Masham*, 2 USPQ2d 1647 (1987).

Claims 17-19 recite method limitations (i.e. all limitations with regards to how the edges are joined or sealed) in a product claim and therefore have been given little to no

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patentable weight since It has been found that even though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process. *In re Thorpe*, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985).

6. Claims 2-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Thedford (U.S. Patent No. 4,123,855) in view of Huang (U.S. Patent No. 6,161,240), as applied to claims 1, 13-15 and 17-22 above, and further in view of Campodonico et al. (EP 0 286 601) and Dean et al. (U.S. Patent No. 5,704,137).

Thedford teaches that the fluid is of a flow quantity that allows the insole to provide a therapeutic effect on the foot when the sac is pressed (column 3, lines 31-37) (applies to instant claim 12)

Thedford and Huang disclose applicant's invention substantially as claimed. However, neither reference teaches that the heat reflective material is a mixture having a quantity of heat reflective powder or particulate and a quantity of thickening agent, wherein the heat reflective powder or particulate is one or a combination of two or more materials selected from titanium dioxide, zirconium and zinc oxide, wherein the powder or particulate is of paint grade particle size, wherein the mixture having a quantity of

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fluid so that it is flowable, wherein the thickening agent is one or a combination or two or more materials selected from bentonite, attapulite and celluloses.

Campodonico et al. teach a powdered deodorant composition for shoes which contains zinc oxide (abstract and column 2, lines 5-35), the deodorant of Campodonico et al. provides a shoe deodorant which provides a long lasting deodorant effect. The deodorant of Campodonico et al. is also a heat reflective material since the deodorant of Campodonico et al. contains zinc oxide which is one of the materials claimed by applicant. Campodonico et al. is combinable with Thedford and Huang because both Thedford and Huang suggest the use of deodorants in the sac fluid (Thedford, column 6, lines 10-15 and Huang, column 12, lines 44-65) (applies to instant claims 2-3 and 6-7).

Therefore it would have been obvious to one having ordinary skill in the art at the time applicant's invention was made to have provided a deodorant containing zinc oxide in the insole of Thedford in order to provide a long lasting deodorant effect as taught or suggested by Campodonico et al..

Dean et al. teach a fluid in a hydrodynamic pad for footwear which contains cellulose thickeners (abstract, column 2, lines 40-68, column 6, lines 20-32) (applies to instant claims 2, 6 and 11) for the purpose of maximizing cushioning and support of the wearers heel.

Therefore it would have been obvious to one having ordinary skill in the art at the time applicant's invention was made to have provided a fluid which contains a cellulose

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thickner in the insole of Thedford in order to maximize cushioning and support of the wearers heal.

With regards to claims 2 and 6, which recites that the heat reflective material is a mixture having a quantity of heat reflective powder or particulate and a quantity of thickening agent and wherein the mixture having a quantity of fluid so that it is flowable, such a device is obtained by the combined teachings of Thedford, Huang, Campodonico et al. and Dean et al.. Applicant's recited invention of claims 2 and 6 is obtained by the combined teachings because Thedford an insole of fluid impervious layers 1 and 2 with a fluid contained therein, Huang teaches that the fluid can be a cooling liquied (i.e. heat reflective), Campodonico et al. teach a zinc oxide containing foot deodorant (which is also heat reflective due to the presence of zinc oxide) for use in shoes and Dean et al. teach a cellulose thickner for use in hydrodynamic pads for footwear. Thus when all the teachings are combined applicant's recited invention of claims 2 and 6 is obtained. Moreover, it would have been obvious to one of ordinary skill in the art to have provided that the heat reflective material is a mixture having a quantity of heat reflective powder or particulate and a quantity of thickening agent and wherein the mixture having a quantity of fluid so that it is flowable in order to provide improved cooling, deodorizing effect and maximize cushioning and support of the wearers heal (applies to instant claims 2 and 6).

With regards to claims 4, 8 and 10, none of the cited prior art of record teaches the recited amounts for the heat reflective powder and the thickening agent. However, Campodonico et al. does teach that the amount of zinc oxide can be varied from 20-

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30% (see column 2, lines 10-20) and Dean et al. teach that the addition of cellulose thickeners increase the viscosity of the fluid thus suggesting increased cushioning and support of the wearers heel. Thus one of ordinary skill in the art would have recognized that the recited amounts for the heat reflective powder and the thickening agent would be readily determined through routine experimentation depending on the desired end results absent some showing of unexpected results. Further, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have made a footwear device with the recited amounts for the heat reflective powder and the thickening agent in order to provide improved cooling, deodorizing effect and maximize cushioning and support of the wearers heel, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges or an optimum value of a result effective variable involves only routine skill in the art (applies to instant claims 4, 8 and 10). *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

7. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Thedford (U.S. Patent No. 4,123,855) in view of Huang (U.S. Patent No. 6,161,240), as applied to claims 1, 13-15 and 17-22 above, and further in view of Oatman (U.S. Patent No. 4,658,515).

Thedford and Huang disclose applicant's invention substantially as claimed. However, neither Thedford nor Huang teach that the device is reversible so that either surface of the first and second layers can be used.

Oatman teaches a device which is reversible so that either surface of the first and second layers can be used (column 3, lines 9-27) in a footwear device (abstract) for the purpose of providing an insole which may be inserted in either right or left shoe but in each position a heat reflecting layer will be disposed immediately adjacent the bottom of the foot of the wearer.

Therefore it would have been obvious to one having ordinary skill in the art at the time applicant's invention was made to have provided a device which is reversible so that either surface of the first and second layers can be used in order to provide an insole which may be inserted in either right or left shoe but in each position a heat reflecting layer will be disposed immediately adjacent the bottom of the foot of the wearer as taught or suggested by Oatman.


Conclusion

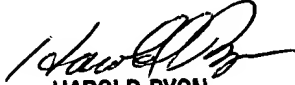
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael C. Miggins whose telephone number is (703) 305-0915. The examiner can normally be reached on Monday-Friday; 1:30-10:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Pyon Harold can be reached on (703) 308-4251. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9310 for regular communications and (703) 872-9311 for After Final communications.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

MCM 
March 10, 2003


HAROLD PYON
SUPERVISORY PATENT EXAMINER
1772 3/10/03